Warfarin Initiation / Restarting with INR < 1.2

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- Check contraindications. *See box 1.*
- Check FBC, LFTs, INR, APTT
- Choose warfarin brand (Marevan most common) or continue existing brand
- In most cases current aspirin can be stopped, except in metallic heart valves (discuss with cardiology if relevant)

AF/Atrial Flutter

Target INR

- AF : 2-3
- AF + DVT/PE: 2.5-3.5
- AF + left atrial thrombus: 2.5 – 3.5

Slow Loading

Day	INR	Warfarin dose
1	-	3mg
2	-	3mg
3	-	3mg
4	-	3mg
5	<2.0	4mg
	2.0-3.0	3mg
	3.0-3.5	2mg
	>3.5	1mg
>6		Adjust dose in *small* increments

Once stabilised, check INR weekly for 3 weeks, then 6-8 weekly

Check interactions – *see box 2.*

Duration of warfarin treatment: indefinite

DVT / PE

If active solid malignancy- *see box 6.*

Target INR

- DVT/PE: 2-3
- Left atrial thrombus: 2.5-3.5

- Start warfarin, and start enoxaparin 1.5mg/kg once daily *(if patient >100kg consult with medical team)*
- Continue enoxaparin for a minimum of 4 days and stop once INR >=2

Hospital doctors click here for enoxaparin protocol

Check interactions – *see box 2.*

Fast loading

Day	INR	Warfarin dose (mg)
1	<1.4	Average Adult = 5mg Low Risk (*See box 3.) = 10mg.
	>1.4	Seek Advice
2	<1.8	5
	1.8-2.0	1
	>2.0	0
3	<2.0	5
	2.0-2.5	4
	2.6-2.9	3
	3.0-3.2	2
	3.3-3.5	1
	>3.5	0
4	<1.4	10
	1.4-1.5	7
	1.6-1.7	6
	1.8-1.9	5
	2.0-2.3	4
	2.4-3.0	3
	3.1-3.2	2
	3.3-3.5	1
	>3.5	0
Day 5 onwards – if INR therapeutic use Day 4 dose as maintenance dose; otherwise seek specialist advice.		

Duration of warfarin treatment:

- DVT: *see box 4.*
- PE: *see box 5.*

Artificial (Metallic) Heart Valve

Target INR

- Aortic bileaflet mechanical valve: 2-3
- Other prosthetic/mechanical: 2.5-3.5

Check interactions – *see box 2.*

Duration of warfarin treatment: indefinite

Instructions for discharging hospital doctors

- Refer to hospital pharmacist for patient education, or if unavailable: educate and give red warfarin booklet
- Inform GP of latest INR result and recent warfarin doses
- Inform GP of intended duration of warfarin treatment and of target INR

Box 1.

Absolute contraindications:

- Large oesophageal varices or decompensated liver disease
- Within 72 hours of major surgery
- A platelet count of less than 50
- Hypersensitivity to the drug, such as skin ischemic necrosis or priapism
- Pregnancy and within 48 hours of delivery
- Coagulation defects at baseline such that the INR is over 1.5 or uncorrected major bleeding disorder e.g. haemophilia
- Renal failure

Relative contraindications:

- Previous history of intracranial haemorrhage
- Recent history of a major extracranial bleed without known cause
- History of peptic ulceration within the past three months (wait until treatment of peptic ulcer is completed then continue treatment along with warfarin)
- Recent history of repeated falling episodes with a patient at higher risk for bleeds
- Unsupervised patients with conditions associated with potential high level of noncompliance (e.g. dementia, alcoholism, psychosis)
- Severe hypertension which is poorly controlled, or not under treatment
- Concomitant use of other drugs that interact with warfarin, increasing the risk of bleeding
- Major regional or lumbar block anaesthesia
- Spinal puncture and other diagnostic or therapeutic procedures with potential for uncontrollable bleeding

Box 3.

Low Risk =

- Age < 60 years
- Body weight > 50kg
- No liver disease
- No cardiac failure
- Serum albumin > 35g/L
- No known bleeding risk
- Not taking medication that enhance the effect of anticoagulants
- Previously anticoagulated and maintenance dose > 2mg daily

Box 2.

- For interactions, refer to the Interactions Checker at http://nzf.org.nz/
- Don't forget to check for complementary/natural medicines and over the counter (OTC) products

Box 4.

DVT

- Proximal
    1. Provoked: 3 months anticoagulation
    2. Unprovoked or recurrent DVT or persistent risk factors (e.g. thrombophilia, family history, immobility): lifelong anticoagulation*
- Distal
    1. Symptomatic
        - Provoked: 3 months anticoagulation
        - Unprovoked or recurrent DVT or persistent risk factors (as above): lifelong anticoagulation *
    2. Asymptomatic or patient does not want anticoagulation: observe and repeat ultrasound weekly for two weeks. If DVT shows extension: 3 months anticoagulation, if not then no anticoagulation.

* NB *Lifelong* anticoagulation may not be appropriate for some patients. If risk factors for bleeding are present consider shorter treatment duration (use validated risk score, eg **HAS-BLED** score)- see http://www.mdcalc.com/

Box 5.

Pulmonary embolism

- Provoked: 6 months anticoagulation
- Unprovoked or large or recurrent PE or persistent risk factors: lifelong anticoagulation, and refer haematology for further testing

Box 6.

DVT/PE in Active Solid Malignancy

- Not for warfarin
- Use indefinite enoxaparin (or until malignancy resolved)- download special authority form for enoxaparin here- http://www.pharmac.govt.nz/2016/10/01/SA1174.pdf

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